



# *Introductory Remarks*

## ***N+3 Pre-Proposal Conference***

***Dr. Lisa J. Porter***

L'Enfant Plaza Hotel  
Washington, DC  
November 29, 2007

National Aeronautics and Space Administration



**NASA AERONAUTICS RESEARCH MISSION DIRECTORATE  
FUNDAMENTAL AERONAUTICS PROGRAM  
SUBSONIC FIXED WING AND SUPERSONICS PROJECTS  
PRE-PROPOSAL CONFERENCE**

**Advanced Concept Studies for Subsonic and Supersonic  
Commercial Transports Entering Service in the 2030-35 Period**

**Thursday, November 29, 2007, 1 to 5 pm**

**L'Enfant Plaza Hotel  
480 L'Enfant Plaza  
Washington, D.C.**



With this NRA solicitation, NASA is seeking to stimulate innovation and foster the pursuit of revolutionary conceptual designs for aircraft that could enter into service in the 2030-35 period. The focus is on both subsonic and supersonic transports that can overcome significant performance and environmental challenges for the benefit of the general public. Furthermore, these conceptual studies will identify key technology development needs that will enable such vehicles. Additional details including specific metrics and objectives, vehicle classes, range and scope of technologies of interest, and expectations for proposals will be provided at this meeting.



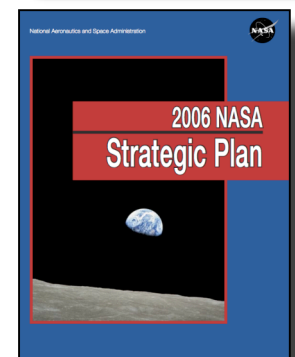
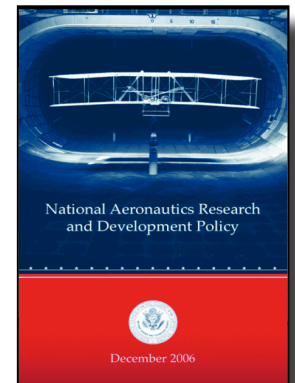
To register, visit: [www.aeronautics.nasa.gov](http://www.aeronautics.nasa.gov).

# The Three Core Principles of ARMD

- We will dedicate ourselves to the mastery and intellectual stewardship of the core competencies of Aeronautics for the Nation in all flight regimes.
- We will focus our research in areas that are appropriate to NASA's unique capabilities.
- We will directly address the fundamental research needs of the Next Generation Air Transportation System (NextGen) in partnership with the member agencies of the Joint Planning and Development Office (JPDO).

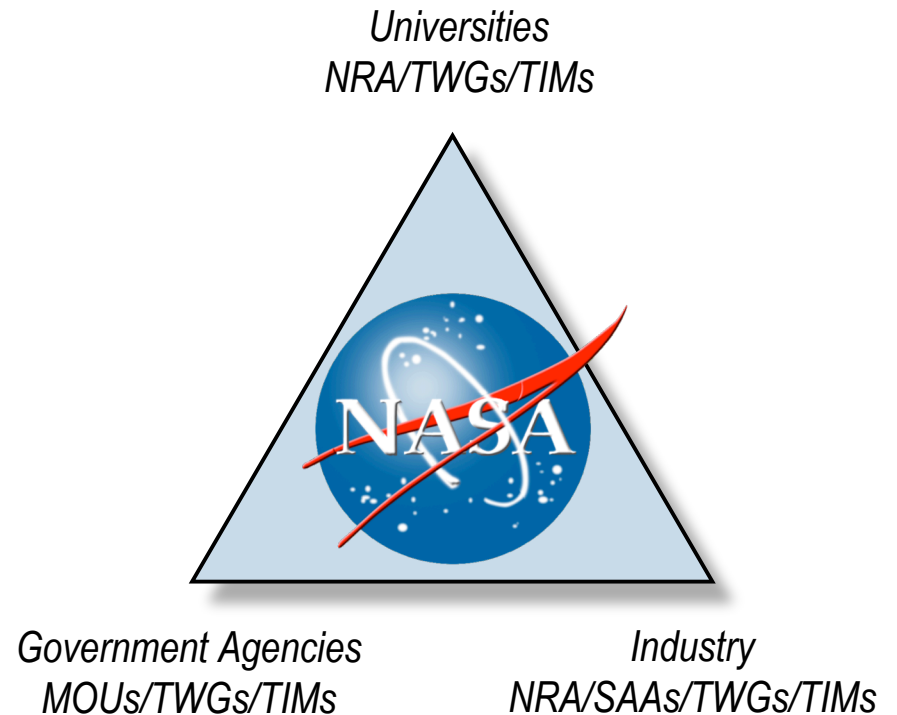
# The National and NASA Contexts

- **NextGen: The Next Generation Air Transportation System**
  - Joint Planning Development Office (JPDO), Vision 100 (2003)
  - Revolutionary transformation of the airspace, the vehicles that fly in it, and their operations, safety, and environmental impact
- **National Aeronautics R&D Policy & Accompanying EO 13419 (Dec 2006)**
  - Goal: To advance U.S. technological leadership in aeronautics by fostering a vibrant and dynamic aeronautics R&D community that includes government, industry and academia.
  - Principles:
    - “Mobility through the air is vital to economic stability, growth, and security as a nation”
    - “Assuring energy availability and efficiency is central to the growth of the aeronautics enterprise”
    - “The environment must be protected while sustaining growth in air transportation”
- **NASA Strategic Plan**
  - Strategic Goal 3: “Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration.”
  - Sub-Goal 3E: “Advance knowledge in the fundamental disciplines of aeronautics, and develop technologies for safer aircraft and higher capacity airspace systems.”



# Partnering Philosophy

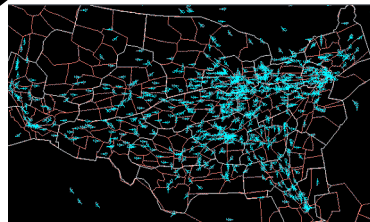
- Enhance the state of Aeronautics for the Nation
- Help foster a collaborative research environment in which ideas and knowledge are exchanged across all communities
- Maximize the return on investment to the taxpayer (our main stakeholder)
- Every element of our portfolio targets innovative, pre-competitive research that will advance our Nation's aeronautical expertise
- In accordance with NASA's Space Act (as amended) and the National Aeronautics R&D Policy, we will provide for the widest practical and appropriate dissemination of our research results (consistent with national security and foreign policy)



# NASA's Aeronautics Programs

## Fundamental Aeronautics Program

Conduct cutting-edge research that will produce innovative concepts, tools, and technologies to enable revolutionary changes for vehicles that fly in all speed regimes.



## Aviation Safety Program

Conduct cutting-edge research that will produce innovative concepts, tools, and technologies to improve the intrinsic safety attributes of current and future aircraft.



## Airspace Systems Program

Directly addresses the fundamental ATM research needs for NextGen by developing revolutionary concepts, capabilities, and technologies that will enable significant increases in the capacity, efficiency and flexibility of the NAS.

# N+3 Solicitation

- “N+3 NRA” is short for “Advanced Concept Studies for Subsonic and Supersonic Commercial Transports Entering Service in the 2030-35 Period”
- How can we accommodate the forecasted demand of 2-3x increase in capacity of the air transportation system?
  - Significantly reduce the environmental impact of future vehicles (noise, emissions)
  - Significantly improve the performance of future vehicles (e.g., reduce on-board energy usage, reduce field lengths, increase speed)

# How to find out more

Information about NASA's Aeronautics Research:

[www.aeronautics.nasa.gov](http://www.aeronautics.nasa.gov)

- Overview of each Program
- Detailed Project plans with Schedule and Milestones
- NASA Research Announcement (NRA) information
  - Current solicitations
  - Award recipients
- ARMD Technical Seminars
- MOUs with other OGAs
- The National Aeronautics R&D Policy and NASA's Report to Congress in response to the Policy
- Educational information (design competitions, scholarships)
- Etc